## DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-014545

Address: 333 Burma Road **Date Inspected:** 30-May-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Sun Bo **CWI Present:** Yes No Yes **Inspected CWI report:** N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Bay 9

### **Summary of Items Observed:**

On this day Caltrans OSM Quality Assurance (QA) Inspector Christopher D'souza was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhen Hua Port Machinery Company (ZPMC) at Chang Xing Island in Shanghai, China. QA Inspector observed and/or found the following:

Bay 12

No Relevant observations

Bay 9

Gantry Welding

This inspector performed In- Process inspections of production welding of deck panels in Bay 9. Welding was being performed on panel DP3081-001. The weld procedure was found to be WPS-B-T-2342-U1-(U-rib)-5. The welding operators were identified as follows:

Weld 1-059416

Weld 2-201788

Weld 3-203805

Weld 4-059378

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Weld 5-203805 059378 Weld 6-

ZPMC and ABF QC were present during the welding process and identified as Zhang Qiao and Huang Wen Guang respectively. The ZPMC CWI was present during the welding process and identified as Guo Yanfei.

During FCAW root welding process, the welding parameters were verified by this inspector and were as follows:

Head 3, Weld 1- 360 Amps, 31.5 Volts

Head 4, Weld 2- 352 Amps, 31.4 Volts

Head 3, Weld 3- 365 Amps, 30.8 Volts

Head 4, Weld 4- 357 Amps, 30.3 Volts

Head 5, Weld 5-351 Amps, 31.2 Volts

Head 6, Weld 6- 361 Amps, 30.5 Volts

Travel speed recorded by QC was 536 mm/min

### Tack Welding

This QA Inspector observed ZPMC welding personals identified as 059466 and 059472 performing Gas Metal Arc welding (GMAW) tack welding on DP3135-001 (13BW)deck plate to U-rib. ZPMC QC is identified as Zhu Zhong Jie. The welding variables recorded by QC appeared to comply with the WPS-345-B-T-2342 U5b (U-Rib).

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.





## **Summary of Conversations:**

No relevant conversations.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Dsouza, Christopher Quality Assurance Inspector **Reviewed By:** Carreon, Albert QA Reviewer